First occurrence of *Gygis microrhyncha* in the Hawaiian Islands

by Storrs L. Olson

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Systematics of the white-terns, or fairy-terns (cf. Pratt *et al.* 1987), of the genus *Gygis* is more complex than indicated by their usual treatment as consisting of but a single species. There are at least two and perhaps three species-level taxa within the genus, as outlined in Wingate & Watson (1974) and American Ornithologists' Union (1998), although treated therein as subspecies groups. Pratt *et al.* (1987) recognised two species, *G. microrhyncha*, now mainly confined to the main islands of the Marquesas, and *G. alba* for all other populations. This is misleading, because the greatest differences are between the widespread Indo-Pacific species that takes the specific name *G. candida* vs. *G. alba* of the South Atlantic and *G microrhyncha*. The last two are similar in all of the characters that differentiate them from *G. candida*, except that *G. microrhyncha* is much smaller with a more slender bill. Given the size differences, their vast geographical separation, and the long period of time that they have likely been separated, it seems prudent to recognise *G. alba* and *G. microrhyncha* as separate species.

Specimens of *Gygis microrhyncha* or hybrids with *G. candida* are also known from the Line and Phoenix groups (specimens in the United States National Museum) which, with a fossil and archaeological record showing a former much wider distribution of *G. microrhyncha*, indicate that *G. candida* has been hybridising with and then swamping and replacing *G. microrhyncha* (Holyoak & Thibault 1984, Olson ms), resulting in the current relictual distribution of the latter in the Marquesas.

In the Hawaiian group, *Gygis candida* occurs throughout the small islands of the Northwest chain and on Kaula Rock off Niihau. In the main Hawaiian Islands, *Gygis* is known only from a small colony in Honolulu, Oahu. The first breeding pair was observed in 1961 (Berger 1981) and the colony has since increased to *c.*250 breeding pairs (VanderWerf 2003). From this colony, I have examined an adult (BPBM 159032; for all acronyms see the Acknowledgements) and a juvenile (BPBM 183583), obtained in 1982 and 1994, respectively. The deep base of the bill (bluish in life), reduced loral feathering, longer and more deeply notched tail, and pigmented rachides of the remiges and rectrices identify these birds as *G. candida*. Following independent assessment of geographic variation in *G. candida* (Olson ms), I agree with Holyoak & Thibault (1976) that none of the previously described subspecies of *G. candida* is valid except for the birds of Henderson and Ducie islands in the Pitcairn group, which they named *G. alba* (=*candida*) *leucopes*. Thus the resident Hawaiian populations would be referable to *G. candida candida*.

There is, however, an overlooked specimen of *Gygis* from Oahu that long antedates the establishment of the Honolulu colony. This specimen (BBM 4889), a

TABLE 1

Range and mean of measurements (mm) of *Gygis* and ratio of longest to inner rectrices (indicating the degree of forking): *G. microrhyncha* (n=29) from Ua Pou, Hiva Oa, Tahuata, and Fatu Hiva, Marquesas Islands (AMNH). *G. candida* (n=23) from Necker, Nihoa, Laysan, Gardner Pinnacles, French Frigate Shoal (USNM). For all acronyms see the Acknowledgements.

Taxon	Wing chord	Longest rectrix (LR)	Inner rectrix (IR)	LR/IR
G. microrhyncha Oahu BBM 4889	212	83	64	1.30
G. microrhyncha Marquesas	208–227 (217)	73–87 (79)	59–68 (64)	1.14–1.38 (1.22)
G. candida NW Hawaiian Is.	225–245 (234)	103–120 (113)	63–74 (70)	1.54–1.84 (1.61)

female, was taken on nearly the opposite side of the island at Kahuku, on the northern point of Oahu. It was found 'dead in dooryard after westerly blow' on 21 April 1924 by H. K. Schofield. The specimen appears to be typical of *G. microrhyncha* in its small size (Table 1), slender bill with extended loral feathering, short, shallow-notched tail, and lack of any pigment in the rachides of the tail or wing (except a trace in the outermost primary).

The weather conditions noted at the time the bird was found suggest that it was a storm-driven vagrant. But it would have had to stray far from home long before it could have been blown to Oahu by westerly winds, Oahu being nearly 2,000 km north of the northern Line Islands. There is apparently little information on how far any of the *Gygis* terns normally range at sea away from their breeding grounds (Niethammer & Patrick 1998). This constitutes the first record of *Gygis microrhyncha* for the Hawaiian Islands and is thus a new species for the United States, regardless of whether *G. microrhyncha* is merged with *G. alba* or not.

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Previously overlooked museum specimens of White-winged Potoo *Nyctibius leucopterus* Wied 1821

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The enigmatic White-winged Potoo *Nyctibius leucopterus* is one of the smallest and least known of the seven species of potoos (Cleere 1998, Cohn-Haft 1999, Holyoak 2001). It is poorly represented in natural history museum collections, which until recently were thought to contain just two specimens. One is the female holotype, collected in Bahia, Brazil (Wied 1821), the other an unsexed adult (female?) with no supporting data but also thought to have been collected in Brazil. Both are in North American institutions, the holotype in the American Museum of Natural History, New York (AMNH 5867), and the data-less specimen in the Academy of Natural Sciences of Philadelphia (ANSP 22022), both of which I have examined (Figs. 1–2). In addition, four other specimens have been attributed to this species. Lafresnaye (1863) included two specimens in his collection catalogue, an adult male (no. 839) and an adult female (no. 840). The male, now in the Museum of Comparative Zoology, Harvard (MCZ 76549), is actually a Common Potoo *Nyctibius griseus* (pers. obs.), whilst the whereabouts of the female are unknown. Greenway (1978) listed AMNH 5868, a male collected in Bahia in 1817 for Prince Wied-Neuwied, as a syntype, but it too is a *N. griseus* (Chapman 1926, Schulenberg *et al.* 1984, Cohn-Haft 1993). Another specimen, the victim of a road-traffic incident in coastal northern Bahia (Grantsau *et al.* 1999), was re-identified as *N. griseus* by Whitney *et al.* (2003).

Following its description (Wied 1821), White-winged Potoo remained unknown for over 150 years. It was eventually rediscovered near Manaus in Amazonas, northern Brazil, in August 1989, although a roosting bird had previously been observed at the same site in October 1985 (Cohn-Haft 1993). During the pioneering work undertaken by Cohn-Haft, recordings of the bird's vocalisations were obtained, widely circulated and subsequently published by others (e.g. Ranft &